

Examiner's Office

AN 124:152301 HCA
 TI High-strength **steel** for rods having high resistance to delayed fracture
 IN Yamazaki, Shingo; Takahashi, Toshihiko; Tarui, Toshizo
 PA Shinnippon Seitetsu Kk, Japan
 SO Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07300653	A2	19951114	JP 1994-111943	19940428
AB	<p>The low-alloy steel for high-strength rods contains C 0.15-0.50, Si 0.1-2.0, Mn 0.05-2.0, P ≤ 0.015, S ≤ 0.02, and Al 0.005-0.1%, and is heat treated for tempered martensite microstructure with tensile strength ≥ 145 kg/mm², prior austenite grain <u>aspect ratio ≥ 2</u>, and grain boundary <u>carbide size ≤ 0.2 μm</u>. The steel rods are manufd. by hot rolling at 700-850.degree. and draft $\geq 30\%$, quenched to the martensitic microstructure, reheated at ≥ 50.degree./s, held at 350-500.degree. for 10-50 s, and tempered.</p>				

$\leq 0.2 \mu\text{m}$ Carbide size

0.15-0.5 C

0.1-2. Si

0.05-2 Mn

≤ 0.015 P

≤ 0.02 S

Cu

Ni

Cr

Fe